

(43) International Publication Date  
25 March 2004 (25.03.2004)

PCT

(10) International Publication Number  
**WO 2004/024005 A1**(51) International Patent Classification<sup>7</sup>: **A61B 17/00**

Diego, CA 92131 (US). KOVACH, Eric [US/US]; 3107 Querbrada Circle, Carlsbad, CA 92009 (US).

(21) International Application Number:  
**PCT/US2002/028926**

(74) Agent: SPANGLER, Jonathan, D.; 10065 Old Grove Road, San Diego, CA 92131 (US).

(22) International Filing Date:  
11 September 2002 (11.09.2002)(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

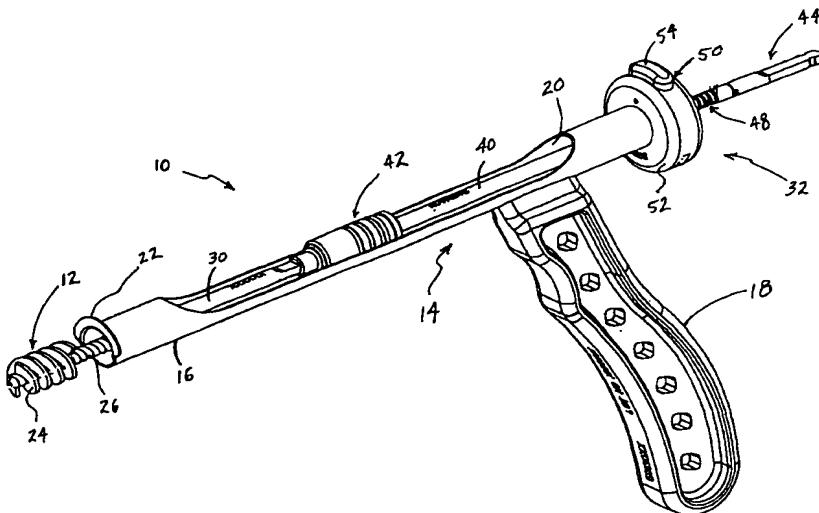
(26) Publication Language: English

**Declarations under Rule 4.17:**

- *of inventorship (Rule 4.17(iv)) for US only*
- *of inventorship (Rule 4.17(iv)) for US only*

*[Continued on next page]*

(54) Title: SYSTEMS AND METHODS FOR REMOVING BODY TISSUE



WO 2004/024005 A1

(57) **Abstract:** Devices and methods for removing body tissue involving the use of a brush member (12) having a plurality of bristle members defining a capacity for carrying body tissue. The brush member (12) is capable of being manipulated within said body to thereby receive body tissue within said brush member (12) such that said body tissue may be carried and thereafter removed from said body. Also provided are protective devices (90) dimensioned to be positioned near an entrance into the target site, the protective devices (90) for establishing a barrier between the brush member (12) and at least a portion of the body tissue adjacent to the entrance. The protective devices (16) may comprise one of a cannula assembly (14) and a retractor assembly.